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Remarks:

Reconsideration of the above referenced application in view of the enclosed amendment and remarks is requested. Claims 7-8, 16-17 and 24-25 have been cancelled. Claims 1, 4, 9, 10, and 18 have been amended. Claims 31-33 have been added to recite further embodiments of the invention. Existing Claims 1-6, 9-15, 18-23 and 26-33 remain in the application.

The specification is amended to correct a typographical error. The advantages and disadvantages of S3 vs. S4 sleep states will be apparent to one of ordinary skill in the art from ready the entirety of the present application, so correction of this error does not introduce new matter.

ARGUMENT

Claims 1-8 and 18-25 are rejected under 35 U.S.C.§ 112, second paragraph as being indefinite. This rejection is respectfully traversed and Claims 1-6 and 18-23 are believed allowable as amended based on the following discussion; Claims 7-8 and 24-25 have been canceled and their limitations added to Claims 1 and 18, respectively.

Claim 1 has been amended to recite that the operational environment is <u>booted</u> if the operational environment is not in the resume stack, but is resumed from hibernate if the selected operational environment is in the resume stack. This distinction is already present in Claim 18. This makes it clear that if the user selects an operational environment that has not been hibernated, that the system <u>boots</u> that environment instead of resuming it. Contrary to the Examiner's assertion, it is certainly possible to <u>boot</u> an operating system (OS), e.g. operational environment, when the OS has not been hibernated. Otherwise, the system would be useless.

The Examiner seems to confuse the difference between resuming from hibernate and a cold or warm boot. For instance, from a power off condition, a boot will perform power on self test (POST), find devices and configuration information, initialize memory and drivers, etc. and then launch an operating system. A resume from hibernate restores a <u>previously existing</u>

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operational state instead of launching an operating system. In this way, a user may select to hibernate one operating environment and choose to resume from another. If the second operating environment is not yet booted and in hibernation mode, the second operational environment will be booted and no error will occur. Thus, Claims 1-6 and 18-23 are believed to be definite and allowable.

Claims 18-25 are rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter. This rejection is respectfully traversed, but in an effort to expedite issuance, amendments are submitted as discussed below. Existing Claims 18-23 are believed allowable based on the above amendments and foregoing and following discussion.

The Examiner's rejection under § 101 is improper and should therefore be withdrawn. Since patent laws regarding non-statutory subject matter have not changed either by rule or legal precedent since the "Examination Guidelines for Computer-related Inventions Example: Automated Manufacturing Plant" were published by the USPTO, preceding the new interim guidelines, this § 101 rejection is improper and should be withdrawn. However, in order to expedite the issuance of this application, Applicant submits a responsive amendment.

Current laws and legal precedent clearly allow claims in the form of computer readable medium, also referred to as a *machine readable medium*, as recited in Claims 18-25, See *In re Beauregard*, 35 USPQ2d 1383 (CAFC 1995). The previous Examination guidelines clearly show that this type of claim is a *statutory computer program embodied on a computer-readable medium*, where the computer-readable medium is a carrier wave (see Example 13). Thus, the alternative description of machine readable medium as described as a propagated or carrier wave signal in the Specification on page 15, is clearly statutory subject matter. Further, the burden is on the USPTO to set forth a prima facie case of unpatentability. The Examiner bears the burden of establishing that a claimed invention is a natural phenomenon. Therefore, absent object evidence to support the position that the 'data signal' is a natural phenomenon, such a position would be untenable. M.P.E.P. § 2106 states that:

"When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be

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statutory in most cases since use of technology permits the function of the descriptive material to be realized."

The computer readable medium (aka machine accessible medium), as claimed, is a statutory article of manufacture claim. The carrier wave may be encoded with the "functional descriptive material." And as will be discussed below, a carrier wave is <u>not</u> intangible, as the Examiner asserts. Nor is whether a thing is "energy" or "intangible" the proper test. The proper test in this case is whether the thing is a "natural phenomenon." Until patent rules or legal precedent reverse this doctrine, computer readable medium claims in the form of diskettes, optical drives, non-volatile memory <u>and</u> carrier wave signals, etc. are all statutory subject matter.

Although a complete explanation has not been made, the Examiner *seems* to assert, that a signal or "carrier means" is *non-statutory* because it is "energy" and presumably not "in a tangible medium" as the court in *In re Beauregard* held. As recited below, <u>there is, however, legal precedent that shows that the view that there is nothing physical (i.e., tangible) about signals is **incorrect**</u>.

> "These claimed steps of "converting", "applying", "determining", and "comparing" are physical process steps that transform one physical, electrical signal into another. The view that "there is nothing necessarily physical about 'signals' " is incorrect. *In re Taner* , 681 F.2d 787, 790, 214 USPQ 678, 681 (CCPA 1982) (holding statutory claims to a method of seismic exploration including the mathematically described steps of "summing" and "simulating from"). The Freeman-Walter-Abele standard is met, for the steps of Simson's claimed method comprise an otherwise statutory process whose mathematical procedures are applied to physical process steps. "

Arrhythmia Research Technology Inc. v. Corazonix Corp. 22 USPQ2d 1033, 1038 (CAFC 1992).

> "Appellants' claims are not in our view merely directed to the solution of a mathematical algorithm. Though the claims directly recite an algorithm, summing, we cannot agree that appellants seek to patent that algorithm in the abstract. Appellants' claims are drawn to a technique of seismic exploration which simulates the response of subsurface earth formations to cylindrical or plane waves. That that technique involves the summing of signals is not in our view fatal to its patentability. Appellants' claimed process involves the taking of

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> substantially spherical seismic signals obtained in conventional seismic
> exploration and converting ("simulating from") those signals into another form,
> i.e., into a form representing the earth's response to cylindrical or plane waves.
> Thus the claims set forth a process and are statutory within §101.
>
> Though the board conceded that appellants' process includes conversion of
> seismic signals into a different form, it took the position that "there is nothing
> necessarily physical about 'signals' " and that "the end product of [appellants'
> invention] is a mathematical result in the form of a pure number." That
> characterization is contrary to the views expressed by this court in *In re
> Sherwood*, 613 F.2d 809, 204 USPQ 537 (CCPA 1980), and *In re Johnson*, 589
> F.2d 1070, 200 USPQ 199 (CCPA 1978), where <u>signals were viewed as
> physical</u> and the processes were viewed as transforming them to a different state."
> [emphasis added]

In re Taner, Koehler, Anstey, and Castelberg, 214 USPQ 678, 681 (CCPA 1982).

Thus, one can safely assume, until a court of higher authority holds otherwise, that signal or carrier wave claims are statutory in the same vein as computer readable, or machine accessible medium, or "Beauregard," claims. Moreover, a computer readable medium <u>in the form of a</u> signal claim is also clearly statutory.

Therefore, Applicants amend Claim 18 to recite "a <u>tangible</u> machine accessible medium ..." The use of the term "tangible" should successfully address the Examiner's assertion that Claims 18-25 are directed to intangible energy forms. However, as legal precedent will prove, carrier waves are tangible forms. Readers of this patent will be put on notice that the claims recite a machine accessible medium comprising tangible media such as solid-state memories, optical and magnetic disks, and a carrier wave that encodes a data signal, etc., as described in the specification. Should a higher court of law create legal precedent that defines carrier waves as <u>intangible</u>, then a reader of the patent will understand Claims 18-23 to exclude carrier waves as included in the recited "<u>tangible</u> machine accessible medium," and still is directed to statutory subject matter. Therefore, the addition of this term results in Claims 18-23 to be indisputably statutory and definite in their meaning to one of ordinary skill in the art.

Claims 1, 3-10, 12-18, 20-26 and 28-30 are rejected under 35 U.S.C. § 102 (b) as being anticipated by European Patent No. 0658843A1 to Hirohisa et al. (hereinafter, "Hirohisa et al.").

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This rejection is respectfully traversed and Claims 1, 3-6, 9-10, 12-15, 18, 20-23, 26 and 28-30 and their progeny are believed allowable based on the foregoing and following discussion.

Hirohisa et al. teach a legacy system that may boot multiple operating systems, and allows a resume from hibernate based on a menu choice. However, Hirohisa et al. do not teach or suggest a system using EFI architecture for disk partition, where operational environments reside in separate EFI defined disk partitions identified by a globally unique identifier (GUID). Using EFI partitions enables the system to have any number of partitions. Systems of the prior art, for instance, with virtual machine monitors, are typically limited to four partitions, and thus, four concurrent operational environments. Using an extensible firmware interface (EFI) compatible system, partition tables make it easy to share large disks and have more than four disk partitions. Other advantages of Applicants' claimed invention are discussed in the specification. Further, Hirohisa et al. teach a method where the hibernation files may be stored on auxiliary media (see Fig. 4 and description). They are restored using a menu tool that is not part of the system firmware.

This is contrary to Applicants' claimed invention. Applicants' claimed invention uses constructs within the firmware to select the hibernation resume files. The resume files also reside in the same disk partition as the operational environment. Independent Claims 1, 9, 18 and 26 are amended to specifically recite limitations pertaining to the EFI aspects of the invention. Therefore, Hirohisa et al. do not teach and suggest every limitation of Applicants' claimed invention and Claims 1-6, 9-15, 18-23, and 26-33 are believed allowable.

Claims 2, 11, 19 and 27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hirohisa et al. in view of USPN 6,678,712 to McLaren et al. (hereinafter, "McLaren et al."). This rejection is respectfully traversed and Claims 2, 11, 19 and 27 are believed allowable based on the foregoing and following discussion.

Neither Hirohisa et al. or McLaren et al. teach a system where the resume file resides on a disk partition corresponding to the operational environment and identified by a GUID in an EFI partition table. Therefore, the Examiner has failed to present a prima facie case of obviousness and Claims 2, 11, 19, and 27 are believed allowable.

All claims remaining in the application are now allowable.

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CONCLUSION

In view of the foregoing, Claims 1-6, 9-15, 18-23 and 26-33 are all in condition for allowance. If the Examiner has any questions, the Examiner is invited to contact the undersigned at (703) 633-6845. Early issuance of Notice of Allowance is respectfully requested. Please charge any shortage of fees in connection with the filing of this paper, including extension of time fees, to Deposit Account 02-2666 and please credit any excess fees to such account.

Respectfully submitted,

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